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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/682,634	10/01/2001	Zbigniew S. Sobolewski	46286-01005	2273

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EXAMINER	
MYERS, PAUL R	
ART UNIT	PAPER NUMBER
2112	

DATE MAILED: 11/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/682,634	SOBOLEWSKI, ZBIGNIEW S.	
	Examiner	Art Unit	
	Paul R. Myers	2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 March 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/21/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-5, 8-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barraza et al PN 5,379,184 in view of Klein et al PN 6,138,194.

In regards to claims 1, 18: Barraza et al teaches a network (Column 2 line 65 to Column 3 line 12) attached storage system (Column 1 lines 45-56) that provides the ability to hot swap (Column 3 lines 19-32) a data storage device comprising: an enclosure capable of holding at least one data storage device (Figure 6E storage module 20), an interface for connecting the system to: (a) a network infrastructure that facilities communications between the system and another computer related device (ISIC), and (b) a supply of power (power); a first electrical interface, located within said enclosure, for providing power and data to a data storage device (Bus 1), a mounting bay for a data storage device (B-1 to –5), said mounting bay comprises: (a) a carriage capable of holding a data storage device (20) and comprising a second electrical interface (Figure 15 backplane connector) that is capable of engaging said first electrical interface, (b) a receiving structure capable of holding said carriage (Figure 6E), and (c) a latch that allows said carriage to be operatively attached to said enclosure (Figure 8 item LA) and

detached from said enclosure; a detector capable of: (a) sensing movement of a physical structure that is indicative of the possible disengagement of said second electrical interface of said carriage from said first electrical interface (Figure 8 item ms) and (b) producing a signal indicative thereof ("unlock" signal). Barraza does not teach processing electronics for receiving a signal then the storage device is moved before the interface disengages. Klein et al teaches an optical detector that detects the movement of a card (210) and processing electronics for receiving said signal output by said detector (200 via 216) and, after receiving said signal, causing action to be taken before said second electrical interface is disengaged from said first electrical interface to prevent the loss or corruption of any data being transferred to or from any data storage device associated with said carriage (Slot disable to isolation buffers). It would have been obvious to a person of ordinary skill in the art at the time of the invention to include isolation electronics because this prevented spurious signals from the possibility of damaging the module circuitry.

In regards to claim 2: Barraza et al teaches at least one block data storage device.

In regards to claim 3: Barraza et al teaches at least one Disk drive.

In regards to claim 4: Barraza et al teaches a SCSI drive. Barraza et al does not teach an ATA/IDE drive. Official notice is taken that the ATA standard (also called IDE) is a well known standard. It would have been obvious to a person of ordinary skill in the art at the time of the invention to allow the attachment of an IDE drive because this would have allowed of the lower cost IDE storage.

In regards to claim 5: Barraza et al teaches the carriage comprises an exterior covering (Figure 7).

In regards to claim 8: Barraza et al teaches the latch comprises a latch actuator and a latch pin; said latch actuator is operatively attached to one of said carriage and said enclosure, and said latch pin is operatively attached to the other one of said carriage and said enclosure (Figure 8).

In regards to claims 9, 11, 20: Barraza et al teaches the detector comprises a mechanical switch that mechanically senses movement of said latch actuator; wherein said signal output by said mechanical switch has a first level when said latch actuator is located at a first position and a second level when said latch actuator moves to a second location that is indicative of the possible disengagement (Micro switch).

In regards to claims 10, 12, 19: Klein et al teaches an electro-optical switch.

In regards to claim 13, 21: Klein et al teaches isolating the slot when card insertion is performed by powering down the bus (Column 2 lines 17-18).

In regards to claims 14-15: Klein et al teaches a controller. Klein et al states it can be software or hardware controlled (Column 1 lines 26-33).

In regards to claims 16-17: Klein et al teaches multiple interfaces (such as for multiple SCSI controllers).

3. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barraza et al PN 5,379,184 in view of Klein et al PN 6,138,194 as applied to claim 1 above, and further in view of Rosenfeldt et al PN 4,479,263.

In regards to claim 6: Barraza et teaches a solid surface upon which the carriage slides to dock. Barraza et al does not teach a rail for the carriage. Rosenfeldt et al teaches drive bays including rails (43-46) for the modules. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use rails as opposed to a solid surface because this would have reduced the friction thus making insertion easier and decreased the amount of material thus decreasing the material costs of production.

In regards to claim 7: Barraza et al teaches the carriage holding a data storage device. Rosenfeldt teaches a rail on the upper and lower sides of the carriage.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul R. Myers whose telephone number is 571 272 3639. The examiner can normally be reached on Mon-Thur 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 571 272 3632. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Paul R. Myers

PRM
November 22, 2004

PAUL R. MYERS
PRIMARY EXAMINER